Davis-BesseNPEm Resource

From: CuadradoDeJesus, Samuel
Sent: Tuesday, January 10, 2012 1:06 PM
To: custerc@firstenergycorp.com
Cc: dorts@firstenergycorp.com; Davis-BesseHearingFile Resource
Subject: Davis Besse 5 Open Items

Cliff,

Below is the table with a list of DB OIs. The OIs that have been closed are strikethrough.

Davis Besse Open Items (5)

OI	Description
1	**Containment Shield Building Crack**: (BLehman) In October 2011, during hydro demolition of the concrete shield building in order to perform a scheduled reactor head replacement, cracks were identified in the containment shield building. While investigating the extent of the cracking, additional cracks were identified around the shield building. The additional cracks were identified using an impulse response (IR) technique and core bores were used to verify the IR results. The applicant is continuing to investigate the extent of the degradation, the root cause of the cracking, and an appropriate approach to resolving the issue. The staff is closely monitoring the situation in terms of current operability; however, the degradation could impact the shield building's ability to perform its intended function during the period of extended operation. Therefore, the staff is planning to issue an RAI requesting information on how the cracking impacts the shield building's ability to perform its intended function during the period of extended operation and how the plant specific operating experience will be incorporated into the Structures Monitoring AMP. The RAI will be issued once more details are known about the degradation, and the impacts on the period of extended operation are easier to understand.
2	**Class 1 valves:** (OYee) In response to a staff RAI the applicant identified 12 large bore Class 1 valves (i.e., valves with nominal pipe sizes in excess of 4-inches NPS) that should have received CUF or fatigue analyses(l_t) in accordance with the design codes. The applicant couldn't find the required Class 1 valves analyses. The staff can't close this issue until the fatigue evaluation is done and submitted for review. Note: According to RIII this is a minor violation under Part 50. The applicant will perform a fatigue evaluation for the Class 1 valves and submit the results of the evaluation to the staff no later than May 31, 2012.

~~3~~	**~~Intake Canal Degradation:~~** ~~(BLehman) During Preventive Maintenance inspections in 2007 it was discovered that the north embankment of the safety-related portion of the intake canal had settled. It is unclear to the staff that the degradation of the embankment has been adequately addressed and that the possible aging effects will be properly managed during the PEO. Therefore, the staff finds the operating experience related to the Water Control Inspection Program inadequate. This issue is an open item because the applicant hasn't taken appropriate actions to repair the embankment and has not yet provided an acceptable response wich provides a clear plan to repair the embankment and the reasons why such a plan would be acceptable.~~
~~4~~	**~~Containment Annulus Degradation~~**~~: (BLehman/ASheikh) The applicant has stated in their RAI responses that the containment annulus area condition is ok. The staff disagrees because there's a condition report (CR-10-22660) with pictures showing the condition of the grout and the moisture barrier in the annulus area as degraded. The staff finds the applicant's AMP inadequate to manage aging during the PEO. Regional Inspector Mel Holmberg inspected the area on October 27 2011 and agrees with DLRs position. For this issue to be closed the applicant needs to acknowledge that the area is considerably degraded and provide a commitment to replace the grout and moisture barrier.~~
5	**Operating Experience**: (MHomiack) To close this issue the applicant needs to state how FENOC plans to address the review and incorporation of operating experience into the license renewal aging management programs. Currently the staff finds the applicant's response unacceptable. The staff held a meeting with NEI in October 12 in which this issue was discussed and RASB will draft a follow-up RAI before the end of November.

6	**SG Tube to Tubesheet Welds PWSCC:** (SMin/CHunt and KKarwoski-DCI) The applicant stated that the tube to tube sheet welds for its SGs do not have a license renewal intended function and therefore, are not subject to an aging management review. In response to the staff's RAI (received 10/21/2011) the applicant stated that the SG tube-to-tubesheet welds do perform a LR intended function (provide RCPB integrity) and also described how cracking do to PWSCC will be managed. However in their response the applicant considerably revised and enhanced the SG Tube Integrity Program and the DCI/DLR staff has the following concerns which were sent to the applicant as a draft RAI on 10/26/2011: (1) the applicant didn't state clearly what's the cladding material and how they'll evaluate the aging effects, (2) the applicant didn't clearly state where the acceptance criteria is (3) the applicant need to demonstrate that EVT-1 can detect cracking and also state wither or not eddy current can detect cracking. A teleconference will be held next Monday (10/31/2011) and after that DCI/DLR will put together their final RAI and have an additional teleconference before issuing the RAI. This is a GALL 2 issue in which DCI/DLR staff will likely need considerable time to reach an agreement and also the applicant will have to provide more information. It's very likely that we'll have additional teleconferences and follow up RAIs before we close this issue. Also DCI/DLR support to review the responses and associated AMP input will take considerable time. This will very likely end up as an open item.
~~7~~	~~**Letdown Cooler Replacement Frequency:** (JGavula) The applicant stated that the letdown coolers are not subject to aging management review because these components are periodically replaced and evaluated as short-lived components. Since these are normally long-lived passive components subject to aging management review, the staff asked for the basis for the replacement frequency. The staff found the applicant response unacceptable because: (1) the staff did not consider that the applicant has provided sufficient bases to justify the replacement frequency of every seventh refueling outage (approximately 14 years) for the letdown coolers in the makeup and purification system and (2) the applicant has not determined the flaw location, performed flaw sizing, or verified flaw characteristics to allow prediction of flaw stability or growth rate.~~ ~~A teleconference was held on 10/5/2011 and the applicant sent a supplemental RAI response on 10/21/2011 which the staff also finds unacceptable. This issue may end up as an open item because the applicant has been unable to provide an acceptable response and also the staff finds this to be a major issue.~~

~~8~~	**~~Fire Water Storage Tank~~:** ~~(JKlos/NIqbal-DRA) Staff concern is that not all applicable aging effects are identified for the fire water storage tank heat exchanger tubes. The applicant originally stated that the consequences of tube failure do not directly challenge the function of the tank. in the applicant's latest response (10/21/2011) the fire water storage tank heat exchanger was removed from scope. The staff has issues with this action because (1) the staff believes that the fire water storage tank is in scope of LR and (2) the applicant didn't clearly explained why the fire water storage tank is not within scope of LR. After two RAI responses and a teleconference the applicant hasn't been able to provide an adequate response to an issue that should be easily closed. To close the issue the applicant should leave the fire water storage tank in scope of LR and provide information on how both loss of material and stress corrosion cracking aging effects will be managed. An acceptable response on this issue may require considerable staff support/time to review possible LRA amendments and provide revised SER input. This can end up as an open item.~~
~~9~~	**~~SG shell flaw evaluations~~:** ~~(CSydnor-DCI) The staff requests that the applicant provide the following information concerning the subject steam generator flaws and the analytical evaluations performed for these flaws: (1) state whether any of the surface-breaking indications were believed to have been caused by stress corrosion cracking, or any other service-induced aging effect (2) state for any in-service examinations performed on the flawed regions of the steam generator shell after 1991 whether these examinations detected any increase in the flaw dimensions, relative to the 1988 flaw dimensions and (3) state whether the subject flaws were analyzed for emergency and faulted conditions, as required by the ASME Code and provide the analyses.~~ ~~Due to the amount of information that the applicant needs to provide and also the staff support needed to review and revise the SER input this will likely end up as an Open item.~~
~~10~~	**~~Thermal Sleeves~~:** ~~(CSydnor-DCI) The staff determined that aging of the subject thermal sleeves should be identified as a TLAA because the aging mechanism is time dependent. The staff requests that the applicant amend LRA Sections 4.1, 4.7.4, and A.2.7.4 to identify HPI/makeup thermal sleeve aging as a TLAA.~~
~~11~~	**~~RV integrity CLB~~:** ~~(CSydnor-DCI)The staff reviewed USAR Section 5.2 and could not locate the CLB analysis for evaluating RV integrity under the subject PTS conditions. Furthermore, the staff found no references in LRA Section 4.8 for reports documenting the analysis of RV integrity under these PTS conditions for the period of extended operation, based on the 52 EFPY RTPTS values. The staff will request the applicant to (1) please state the USAR section the summary of the CLB analysis of the subject PTS event is located, (2) if a summary of the CLB analysis is not located in the USAR, please state where it can be found, and (3) Please provide the reports documenting the projected 52 EFPY analysis of RV integrity under the subject PTS conditions.~~

12	**Containment Vessel Fatigue Analyses:** (ABuford) The staff requested more information to confirm that fatigue evaluations for the containment vessel will remain valid for the period of extended operation. After reviewing the latest RAI response a teleconference was held on 10/26/2011 to discuss concerns related to the applicant's documentation and origin of their fatigue waiver values.
13	**ASME Code Case N-481 evaluation:** (CNg) The applicant stated that the fracture toughness of the cast austenitic stainless steel is not time-dependent as the analysis used a lower bound fracture toughness of 139 ksi√in that bounds the saturated fracture toughness of the Davis-Besse material. The NRC staff's concern is that the applicant's basis may be predicated on charpy or thermal aging data that are not up-to-date or conservative when compared to the most recent data for the state of the industry. To address the NRC staff's concern the applicant agreed to compare the thermal aging data used in the ASME Code Case N-481 evaluation to the most recent industry data (i.e., NUREG/CR- 4513, Rev. 1, Estimation of Fracture Toughness of Cast Stainless Steels During Thermal Aging in LWR Systems," and NUREG/CR-6428, "Effects of Thermal Aging on Fracture Toughness and Charpy-Impact Strength of Stainless Steel Pipe Welds"), and provide the results in a supplemental response to RAI 4.1-2 which was received on 10/21/2011 and is under the staff review. If the staff finds the 10/21/2011 response acceptable the issue can be closed and the input provided by the end of November if not we'll have a teleconference and request the applicant to supplement their RAI response.
14	**Refueling Canal Leakage:** (BLehamn/ASheikh)Boric acid deposits had been observed over a large surface area of the Containment Incore Instrumentation Tunnel walls and the under-vessel area that are indicative of refueling canal leakage. It is unclear to the staff that the effects of refueling cavity leakage on the containment internal concrete structures have been adequately addressed and that the possible aging effects will be properly managed during the PEO. To close this issue the applicant needs to quantify the volume of leakage, provide more information regarding how they'll reduce the leakage, and explain why FENOC believes there is no current concern with the structural integrity of affected concrete in the containment. An RAI response was received on 10/21/2011 and Bryce and Abdul are reviewing it. Bryce agrees with the response but the PM is waiting for Abdul's opinion.

15	**<u>Abandoned Equipment</u>:** (BRogers) The staff requested the applicant to provide details on the activities performed to confirm that all abandoned equipment that at any time contained fluids, and is in the proximity of safety-related SSCs, has been verified to be drained.The NRC staff was unclear from the FENOC response (Commitment 26) to RAI 2.1-3 if FENOC is aware of all the abandoned equipment. The applicant deleted Commitment 26 and stated that abandoned equipment will be identified, and either isolated and drained or included within the scope of license renewal and subject to aging management review by February 15, 2012. The staff agrees with the future resolution of this issue. This is an Open Item.

Samuel Cuadrado de Jesús
Project Manager
Projects Branch 1
Division of License Renewal
U.S. Nuclear Regulatory Commission
Phone: 301-415-2946
Samuel.CuadradoDeJesus@nrc.gov

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From: CuadradoDeJesus, Samuel

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"dorts@firstenergycorp.com" <dorts@firstenergycorp.com>
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Tracking Status: None
"custerc@firstenergycorp.com" <custerc@firstenergycorp.com>
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